

201-15323

Anh Nguyen

06/02/2004 12:19 PM

To: NCIC HPV@EPA

CC:

Subject: Fw: Environmental Defense comments on Alkenes, C15-C18 alpha, reaction products with sulfurized dodecyl phenol, calcium salt sulfurized (CAS# 72275-86-6)

----- Forwarded by Anh Nguyen/DC/USEPA/US on 06/02/2004 12:19 PM -----



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To: NCIC OPPT@EPA, ChemRTK HPV@EPA, Rtk Chem@EPA, Karen Boswell/DC/USEPA/US@EPA, Sarah_McLallen@americanchemistry.com

cc: luciarg@msn.com, kflorini@environmentaldefense.org, rdenison@environmentaldefense.org

Subject: Environmental Defense comments on Alkenes, C15-C18 alpha, reaction products with sulfurized dodecyl phenol, calcium salt sulfurized (CAS# 72275-86-6)

(Submitted via Internet 6/2/04 to oppt.ncic@epa.gov, hpv.chemrtk@epa.gov, boswell.karen@epa.gov, chem.rtk@epa.gov, luciarg@msn.com and Sarah_McLallen@americanchemistry.com)

Environmental Defense appreciates this opportunity to submit comments on the robust summary/test plan for Alkenes, C15-C18 alpha, reaction products with sulfurized dodecyl phenol, calcium salt sulfurized (CAS# 72275-86-6).

The test plan and robust summaries for CAS# 72275-86-6 were submitted by the Petroleum Additives Panel of the American Chemistry Council. This substance, comprised of closely related structural analogs, is used as a detergent and inhibitor in crankcase lubricants. The test plan and summaries are informative and well-written, and we support most of the proposals made by the sponsor.

CAS# 72275-86-6 is a physical mixture of two substances: an alkyl sulfide (67762-55-4) previously submitted to the HPV Program in 2000, and an alkyl phenate sulfide (122384-85-4) in preparation for submission to the OECD SIDS program through the ICCA Initiative. Both materials can be separated by HPLC, indicating that they do not react. On this basis, the sponsor concludes that data from the alkyl sulfide moiety and the alkyl phenate moiety can be used as surrogate data for CAS# 72275-86-6. This approach is scientifically justifiable, and we agree that such data can be used as a surrogate.

The sponsor also proposes to use surrogate data from a shorter chain alkyl sulfide (68511-50-2). While this proposal may also be reasonable, the justification presented in the test plan is inadequate, so we cannot support use of data for 68511-50-2 at this time. We recommend that the sponsor generate a table comparing 67762-55-4 and 68511-50-2 with respect to structure, physicochemical properties and biological and toxic responses, for the purpose of evaluating whether or not the two substances are sufficiently similar and elicit the same pattern of responses in aquatic species and rodents. If this information supports the sponsor's proposal, then we agree that no new testing is required with the exception of the environmental fate studies already proposed by the sponsor. However, if the comparative data are not convincing, then we recommend that aquatic toxicity and reproductive/developmental toxicity studies be conducted on either 72275-86-6 or 67762-55-4.

Other comments are as follows:

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1. Available data indicate that the alkyl phenate and alkyl sulfide, and the mixture of the two, each possess a low order of mammalian and aquatic toxicity. What are the justifications for the contentions that the lower molecular weight alkyl sulfide, proposed as a surrogate, is more or equally toxic to the mixture (72275-86-6) and that it will cause the same pattern of responses?
2. Available data indicate that dermal and oral toxicities are similar for 72275-86-6, so we support the practice employed by the sponsor of using oral and dermal data interchangeably in addressing mammalian health endpoints.
3. Adequate data are available to conclude that 72275-86-6 possesses weak or no genotoxicity.
4. Neither the alkyl sulfide nor the alkyl phenate appears to be biodegradable. Are they found in the environment in appreciable concentrations?
5. Why was a 14-day recovery period used in the repeat dose studies for 122384-85-4 and 72275-86-6?

Thank you for this opportunity to comment.

George Lucier, Ph.D.
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